

**ADMINISTRATIVE PENALTY DISCUSSION PURSUANT TO THE NOV ISSUED FOR,
CENTRAL VALLEY WATER RECLAMATION FACILITY
SETTLEMENT AGREEMENT DOCKET NO. M08-03**

Infractions of the Utah Water Quality Act are penalized up to \$10,000/day/violation for civil penalties (\$25,000/day/violation for criminal) according to guidelines established in the penalty policy (*Utah Administrative Code R317-1-9*).

The principles that apply in the penalty policy are:

- 1) Penalties should be based on the nature and extent of the violation
- 2) Penalties should at a minimum, recover the economic benefit of noncompliance;
- 3) Penalties should be large enough to deter noncompliance;
- 4) Penalties should be consistent in an effort to provide fair and equitable treatment of the regulated community.

To determine a civil penalty the State will consider:

- 1). the magnitude of the violations;
- 2) the degree of actual environmental harm or the potential for such harm created by the violations;
- 3) response and/or investigative costs incurred by the State or others;
- 4) any economic advantage the violator may have gained through noncompliance;
- 5) recidivism of the violator
- 6) good faith efforts of the violator
- 7) ability of the violator to pay;
- 8) the possible deterrent effect of a penalty to prevent future violations.

In the case of negotiated adjustments to penalties, arguments must be based on the considerations above.

Civil penalties for settlement purposes should be calculated based on the following formula:

CIVIL PENALTY = PENALTY + ADJUSTMENTS - ECONOMIC AND LEGAL CONSIDERATIONS

Penalties are grouped in four main categories:

- A. \$7,000 to \$10,000 per day. Violations with high impact on public health and the environment.
- B. \$2,000 to \$7,000 per day. Major violations of the Utah Water Quality Act, associated regulations, permits or orders.
- C. \$500 to \$2,000 per day. Significant violations of the Utah Water Quality Act, associated regulations, permits or orders.
- D. Up to \$500 per day. Minor violations of the Utah Water Quality Act, regulations, permits or orders.

Penalties are established within the penalty ranges shown above, based on the following criteria:

- History of compliance or non-compliance,
- Degree of willfulness or negligence, and
- Good faith efforts to comply.

Adjustments to the civil penalty include:

- The economic benefit gained as a result of non-compliance,
- Investigative costs incurred by the State and/or other governmental level,
- Documented monetary costs associated with environmental damage.

PENALTY - The penalty for CENTRAL VALLEY WATER RECLAMATION FACILITY (CVWRF) has been calculated as follows:

Gravity Component:

The gravity component of the penalty is based on violations listed below.

VIOLATION 1 – 6,

Discharge values for total residual chlorine (TRC) reported on monthly discharge monitoring reports exceeded the discharge limits permitted in their UPDES Permit. The values reported are summarized in the table below. In 2007 CVWRF started having trouble with their de-chlorination system. The system is set to adjust the SO₂ injection to properly de-chlorinate the discharge before it leaves the facility. This system balances flow rate, TRC, and SO₂ application rate. For the majority of the time the system maintains a good balance and there is no TRC violation. When the flow through the system increases, the system has to adjust the SO₂ dose to keep up. The SO₂ dose is not adjusted in relation to flow, but how much TRC is present further down the process. As the TRC increases, more SO₂ is applied. The TRC is measured 15 minutes downstream from the SO₂ application. This is where they would run into problems. As the flow has been increasing, the TRC would rise, but the SO₂ application was 15 minutes behind. CVWRF tries to schedule their compliance monitoring for this parameter at a point in time when they have an average flow. This occurs prior to the morning peak flow. This timing resulted in the TRC violation during 2007. As a fix, CVWRF set the system to increase the dosing of SO₂ automatically during the morning flow increase in anticipation of the peak flow.

VIOLATION 7,

The violation in 2008 was a result of the failure of the downstream TRC probe which required replacing the probe. They had followed the manufacturer's recommendation to use rebuilt probes as replacements to reduce expenditures, and had been replacing and servicing the probes as recommended by the manufacturer. In this instance the replacement probe failed almost immediately.

On January 18th a check of the ProMinent probe had turned up that the probe had failed. There was no TRC violation at the time. The system was set to manual, and the probe was replaced with a rebuilt probe as recommended by the manufacturer. The system was set back into automatic, and the no TRC violation was detected. A routine colorimeter check of the flow on the morning of January 20th showed no color, indicating no probable TRC. Later that morning the reportable sample for TRC was analyzed, and the excursion was discovered. The SO₂ system was set to manual, and the probe was checked and calibrated. The replacement probe failure was subsequently discovered. The system was then switched into manual, and left that way until the replacement probe for the one that failed on Friday was received on Monday. During this time no TRC excursions were detected.

To correct for this CVWRF started cleaning and calibrating the probes two to three times a day, and stepped up the replacement schedule to quarterly. They maintain a new back up probe on site in case of a malfunction and only use new probes for replacement. The manufacturer recommends that the probe be checked and calibrated weekly, replaced annually, and a rebuilt probe is acceptable. Since January the facility has reduce the excess dosing for SO₂ that was being done to insure they do not have a TRC violation. It was determined that with the additional calibration and cleaning, they are able to insure a more accurate reading from the probe, and reduce the dosing levels back to what they were before they discovered the TRC violations.

Violation #	DMR Month	Limit	Daily Maximum
Violation 1	1/31/08	0.03	0.156
Violation 2	12/31/07	0.029	0.139
Violation 3	10/31/07	0.029	0.1144
Violation 4	09/30/07	0.034	0.056
Violation 5	07/31/07	0.034	0.036
Violation 6	03/31/07	0.03	0.104
Violation 7	04/30/05	0.029	0.03

VIOLATION 8.

On February 15, 2008 a pumped bypass sewer line failed resulting in the release of up to 10,000 gallons of raw sewage to an adjacent storm water drainage ditch. The bypass line was operated by a subcontractor for bypassing a portion of the Central Valley sewer interceptor line located at approximately 2700 South and 600 West in South Salt Lake City, Utah. The operation was in support of an interceptor slip lining project. The pumping operation ran for up to 10 minutes, pumping at an estimated rate of 500 to 1,000 gallons per minute, before being stopped. After discovering the break the subcontractor shut down the pump and placed a plastic sheet barrier over an adjacent culvert grate, through which the discharge could flow further down the storm drain system. An unknown volume of the discharge passed through the grate before and after (through possible leakage) the barrier was placed. The subcontractor also proceeded to set up and then pump the discharged effluent back into a manhole of the interceptor system as quickly as possible.

The Salt Lake Valley Health Department has completed enforcement on this violation, and collected a penalty of \$612.00. As a result of this enforcement, violation 8 will be considered resolved and no further penalty will be assessed.

Violations 1 through 7 are violations of the water quality act, and discharge limits associated with Central Valley's UPDES Permit. Due to the relatively short lived nature of the violations and the non persistent nature of the residual chlorine these violations are all categorized as at least Class D Violations.

Due to the nature and concentration of chlorine residual relative to the discharge limit in the UPDES permit, violations 1, 2, 3, and 6 all qualify as significant violations and are being enhanced to Class C Violation accordingly.

Central Valley has a long history of progressive action towards compliance with their UPDES permit. More than a year ago they had started looking into alternative options for disinfection and chose to switch to UV disinfection. This decision was fueled by an increasing difficulty in obtaining and maintaining chlorine onsite for disinfection and the

knowledge that Total Residual Chlorine discharge limits will only continue to tighten. There continued dedication to maintaining compliance and proactive attitude towards issues lead to granting 75 % credit on all violations.

Economic Benefit Justification:

Economic benefit received for VIOLATOR is calculated based on;

1. capital investment delayed;
2. delayed expenditures, and;
3. expenses not incurred.

BEN is a program developed by the EPA to determine the economic benefit a violator has gained by not complying with regulations.

The situation surrounding violations one through six did not require any major capital investments to remedy. They have only modified existing operations to increase the de-chlorination during flow increases. The EPA suggested that a BEN calculation be performed in relation to the use of SO₂ as a result of this operational change by CVWRF, who could have increased the SO₂ dosing back in March of 2007 and not violated their limits for TRC.

To evaluate the amount of SO₂ that should have been used, we determined the difference in the daily feed rate between 2007 and the first six months of 2008. Using information from a report providing updated information on the response to the violations from CVWRF. According to the report they dosed SO₂ at 62% in 2007 and 74% in 2008. IF they had dosed at 74% in 2007 they would have used 127 pounds per day more SO₂ from March 2007 through December 2007 than they did. Ten months at an average 30 days per month equates to 300 days. According to that they should have used 38,148 pounds (19 tons) during that time period in 2007. At \$230 per ton for SO₂, as identified by the EPA, they potentially avoided \$4,387 in costs for SO₂.

The BEN calculation was based on the fact that if CVWRF had increased the SO₂ dosing therefore spending and additional \$4, 387, they would have not violated their effluent limit for TRC. The date of noncompliance used was the first day of the TRC violations, March 10, 2007. The compliance date of Jan 1, 2008 was the day CVWRF began increased dosing. The resulting BEN is \$3,696.

Violation seven was the result of the failure of two chlorine residual probes in one weekend. To remedy the situation CVWRF proceeded to increase the maintenance cycle to daily from weekly as recommended by the manufacturer. Eventually they reduced it to three times per week when a manual check shows the probe appears to be coming out of calibration or need to be cleaned. Since the violation they are far exceeding the recommendations of the manufacturer, and were meeting the manufacturer's recommendations for operating the equipment when they failed. The issues surrounding the sewer bypass spill have not required any new investment in infrastructure. For these reasons it has been determined that no Economic Benefit has been received from these violations and no component will be included.